

PLEX SDM-700-R®

7" Pro-level Display & Central Logger with Built-in 25Hz GNSS / 100Hz IMU



Description

The revised PLEX SDM-700-R® elevates our flagship 7" Pro-level Display & Central Logger with advanced features and enhanced performance.

This new version boasts state-of-the-art electronics, an upgraded 25Hz multi-GNSS module for superior accuracy, WiFi capabilities, and expanded logging functions. It also introduces a refined UI with improved graphical elements, all encased in a durable IP67-rated aluminum enclosure. A robust multi-core processor ensures peak performance across complex configurations, while our proprietary QuickGlance™ UI enhances driver visibility and ergonomics in demanding circumstances. Additionally, the SDM-700-R® is now compatible with the latest PLEX Device Manager V2 software, offering unparalleled customization and speed.

Applications

- Automotive
 - Motorcycle
 - Steering wheels
- Marine
 - Off-road
 - Snowmobiles

Key Features

- 7" High-brightness & contrast Display with top-quality broadband anti-reflective glass
- High-quality rugged aluminium enclosure with IP67 weather protection
- Powerful multi-core processor
- Fully configurable CAN BUS, I/Os and UI
- 37pin Motorsport Connector
- Unlimited USB data-logging & built-in memory
- Built-in 25Hz multi-GNSS & 100Hz IMU modules

Price

2.499EUR

Technical Specifications

Inputs	
Analog/Digital/Frequency 0-5V	4
Analog/Digital/Frequency 0-16V	4
Switch/Button Inputs	4
Outputs	
AUX High Side	2 (lim 2.5A)
AUX Low Side	1 (lim 0.5A)
LEDs	16 RGB
Communications	
Can Bus Ports	2 (250kbit – 1.333Mbit CAN2.0, up to 5Mbit CAN FD)
RS-232 Ports	1 (shared with CAN2)
Lin Bus Ports	1
USB	1 (for config. & logging)
WiFi	for configuration
Ethernet	1 (for config. & log file download)
Internal Sensors	
Real Time Clock	with battery backup
Device/Sensor voltage monitor	+12V supp./+5V sensor supply
Device Temperature monitor	Yes
Ambient light sensor	Yes
Accelerometer	100Hz 6-Axis IMU
GPS / GNSS	25Hz multi-GNSS
Data Channels	
Max Data Channels	384
Max Flag Channels	320

Technical Specifications - Continued

Data-logging continued	
Memory	USB Flash Drive & internal memory
Log Rate Max	100Hz
Engine Log	Yes
Alarms Log	Yes
Lap Times Log	yes
Performance Times Log	yes
Calculations	
Lap Times	Yes
Acceleration Performance	Yes
Engine Power & Torque	Yes
Math Channels	32
Trip Meters	4
Screen	
Type	RGB TFT wide temp
Size	800 x 480 pixels
Brightness	1000cd
Refresh rate	50Hz
Display glass	ARC high-efficiency broad-band anti-reflection
User Interface	
# of Pages	up to 48
Custom page design	yes
Colour themes	yes
Electrical Data	
Supply Voltage Range	9-30V DC
Current Consumption	max. 2A at 12V
Operating Conditions	
Temperature Range	-20 to +60 degC
Physical	
Connectors	37pin Souriaou
Dimensions mm	width: 200, height: 129, depth 27/47mm
Weight	720g
Material	CNC machined aluminum
Sealing / Ingress Protection	IP67 - dust tight, protected against water immersion

Improvements vs Previous Version

- Fully re-designed electronics and hardware
- Wi-Fi Configuration
- USB Data-logging
- Compatible with latest PLEX Device Manager v2 Configuration software
- New UI configuration platform (improved graphical elements)
- More math channels
- More data channels

Control Add-ons

BLKM-4K	4button weather sealed keypad with configurable CAN BUS
BLKM-PT	6button weather sealed with rotary controller

What's In The Box

- | | |
|--------------------|------------------------|
| ■ Display | ■ USB cable |
| ■ MicroSD Card Kit | ■ USB Flash Drive 32GB |
| ■ Connector & Pins | ■ GPS Antenna |

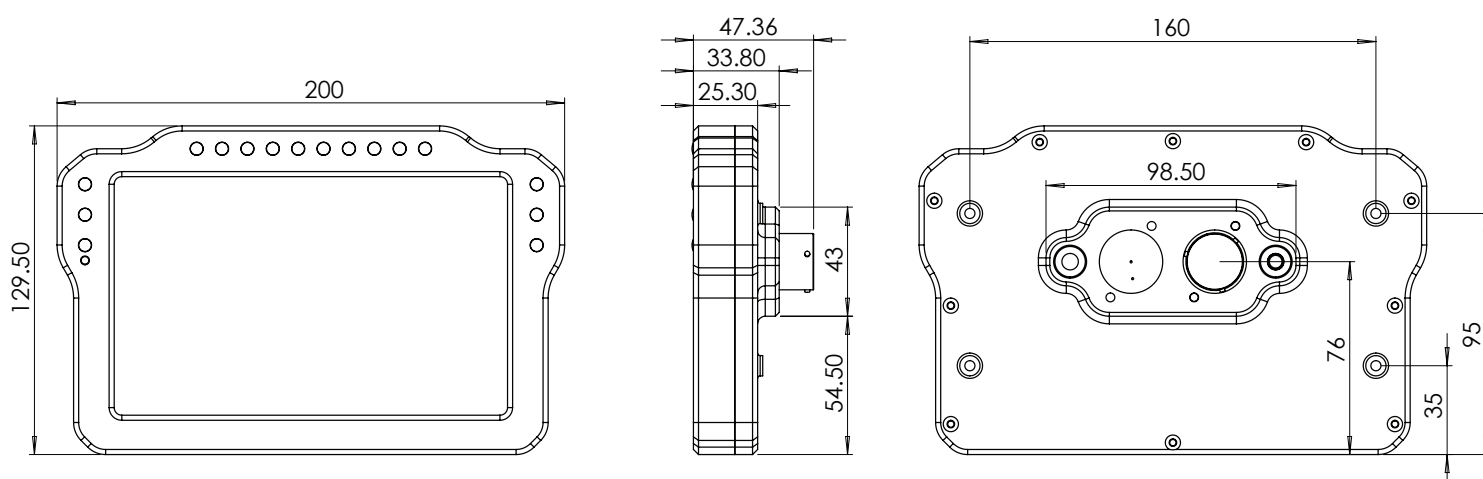
Software

PLEX Device Manager V2	configuration	free
PLEX PDA-WIN	data analysis	free
PLEX PDA-WIN-PRO	data analysis	paid



Indicative List of Compatible After Market ECU Brands & CAN Devices

Fully configurable CAN Receive & Transmit	MAGNETI MARELI
AIM	MAXX ECU
BLINK MARINE	MBE
BOSCH MOTORSPORT	MECTRONIK
CARROT	MEGASQUIRT
COSWORTH	MME
DTA	MOTEC
ECUMASTER	MSEL
EFI	PECTEL
ELETROMOTIVE	PRO EFI
EMERALD	RACEGRADE
EMTRON	RACELOGIC
E-RACE BLACK	SPECIALIST COMPONENTS
GEMS	SIMTEK
GRAYHILL	SYBELE
HALTECH	SYVECS
HONDATA	TEXENSE
HP ELETRONIC	TREMONDI
KMS	TRIJECT
LIFE RACING	XAP
LINK	And many more (contact us at for custom requests)

Technical Drawings / Dimensions / Mounting (in mm)**ATTENTION - DISCLAIMER**

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PIN FUNCTIONS - Connector 8STA6-14-35SN

#	LABEL	DESCRIPTION	NOTES
1	AUX1 HS	Auxiliary output – High Side 2.5A max	ON/OFF or PWM.Sources current from pin 18
2	AUX2 HS	Auxiliary output – High Side 2.5A max	ON/OFF or PWM.Sources current from pin 18
3	AUX4 LS	Auxiliary output – Low Side 0.5A max	ON/OFF or PWM.Sinks current to GND
4	AUX3 LS	Auxiliary output – Low Side 0.5A max	ON/OFF or PWM.Sinks current to GND
5	AN5 / DI5 / FR5	Analog/Digital/Frequency input, 0-16V	selectable pull down 330Ohm
6	AN7 / DI7 / FR7	Analog/Digital/Frequency input, 0-16V	selectable pull down 330Ohm
7	DI9	Digital input for buttons / switches	fixed 47K pull up to 5V
8	DI11	Digital input for buttons / switches	fixed 47K pull up to 5V
9	CAN1 LO	250kbit – 1.333Mbit CAN2.0, up to 5Mbit CAN FD	selectable 120R termination
10	CAN1 HI	250kbit – 1.333Mbit CAN2.0, up to 5Mbit CAN FD	selectable 120R termination
11	CAN2 LO / RS232 TX	250kbit – 1.333Mbit CAN2.0, up to 5Mbit CAN FD	selectable 120R termination
12	CAN2 HI / RS232 RX	250kbit – 1.333Mbit CAN2.0, up to 5Mbit CAN FD	selectable 120R termination
13	USB 5V	USB 5V output, protected, max 250mA	supplies power to USB flash drives in logging mode
14	USB DATA P	USB Data Positive signal	
15	ETH RX -	PC Ethernet communications signal	
16	ETH TX +	PC Ethernet communications signal	
17	+12V	Power supply for the device. 10-24V. Max 0.8A	Connect to a switched +12V power source
18	+12V AUX	Power supply for AUX1 and AUX2. 10-24V. Max 5A.	Connect to a switched +12V power source
19	AN1 / DI1 / FR1	Analog/Digital/Frequency input, 0-5V	selectable pull up 3.3KOhm
20	AN2 / DI2 / FR2	Analog/Digital/Frequency input, 0-5V	selectable pull up 3.3KOhm
21	AN4 / DI4 / FR4	Analog/Digital/Frequency input, 0-5V	selectable pull up 3.3KOhm
22	AN8 / DI8 / FR8	Analog/Digital/Frequency input, 0-16V	selectable pull down 330Ohm
23	DI10	Digital input for buttons / switches	fixed 47K pull up to 5V
24	DI12	Digital input for buttons / switches	fixed 47K pull up to 5V
25	NC	DO NOT CONNECT – FUTURE USE	
26	USB GND	USB Ground	
27	USB DATA N	USB Data Negative signal	
28	ETH RX +	PC Ethernet communications signal	
29	ETH TX -	PC Ethernet communications signal	
30	5V	Regulated 5V sensor supply output. Max 200mA	Current and thermal limit
31	AN3 / DI3 / FR3	Analog/Digital/Frequency input, 0-5V	selectable pull up 3.3KOhm
32	AN6 / DI6 / FR6	Analog/Digital/Frequency input, 0-16V	selectable pull down 330Ohm
33	LIN / RECOVERY	Lin bus Master / Recovery	Device boots in recovery mode when pin connected to ground
34	NC	DO NOT CONNECT – FUTURE USE	
35	GND	Ground supply for the device	Connect both GND pins to the chassis ground
36	SGND	Ground supply output for sensors	Do NOT connect to chassis ground
37	GND	Ground supply for the device	Connect both GND pins to the chassis ground

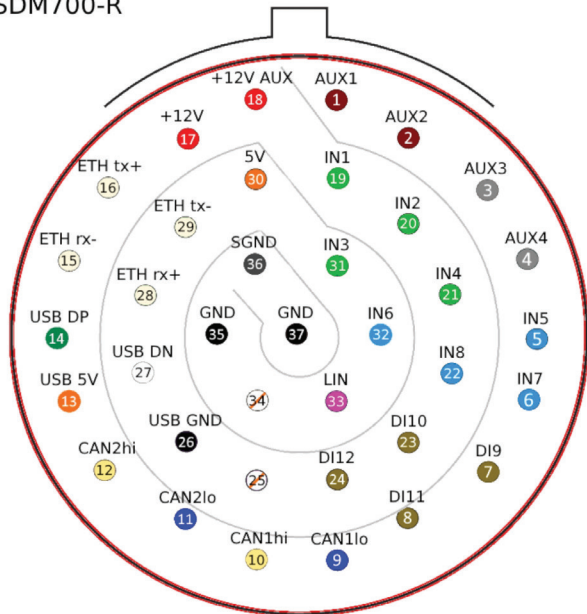
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DEVICE CONNECTOR (View looking into the device from the wire side)

SDM700-R



CONNECTOR PART NUMBERS

LOOM CONNECTOR	Souriau 8STA6-14-35SN
WIRE PINS	Souriau M39029/56-348
DUMMY PLUGS	Souriau MS27488-22-1

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